

# Documentation of Traditional Music and Dance In Ghana

Documentation and Archiving of the Dagbon Audio – Visual Collection at the  
RMCA – Tervuren, Belgium



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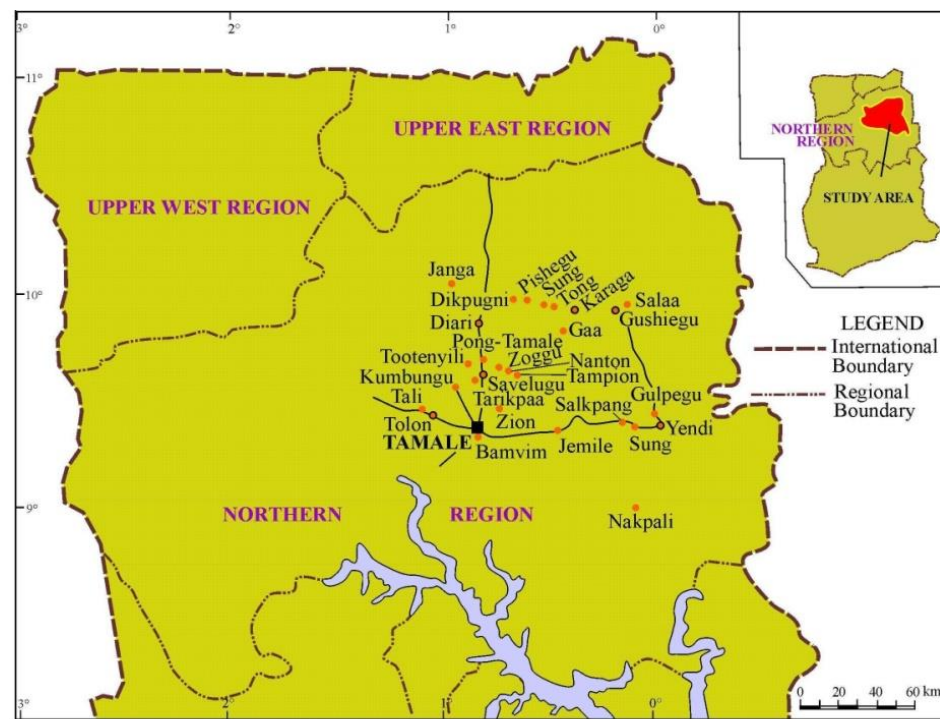
FACULTY OF ARTS AND PHILOSOPHY

# Outline

- The Audio -Visual Archive at the RMCA-Tervuren, Belgium. 1999-2011.
  - Processing and archiving of the audio-visual materials.
  - Processing of the meta data into the DEKKMMA - Platform and MIMO-Platform.
- Fieldwork and methodology in collecting data and meta data.
  - **Audio-visual field recording in Dagbon:**
    - The traditional idioms of music-making
    - The urban idioms of music-making
- Case studies: Research on embodied music interaction and Expressive timing at the University of Ghent.
  - The intensity factor in ritual music and dance in *Dagbon*.
  - Concept of “Movable one”, homeostasis and transitional states
- Our conclusion.

# Road map (1999 -2011)

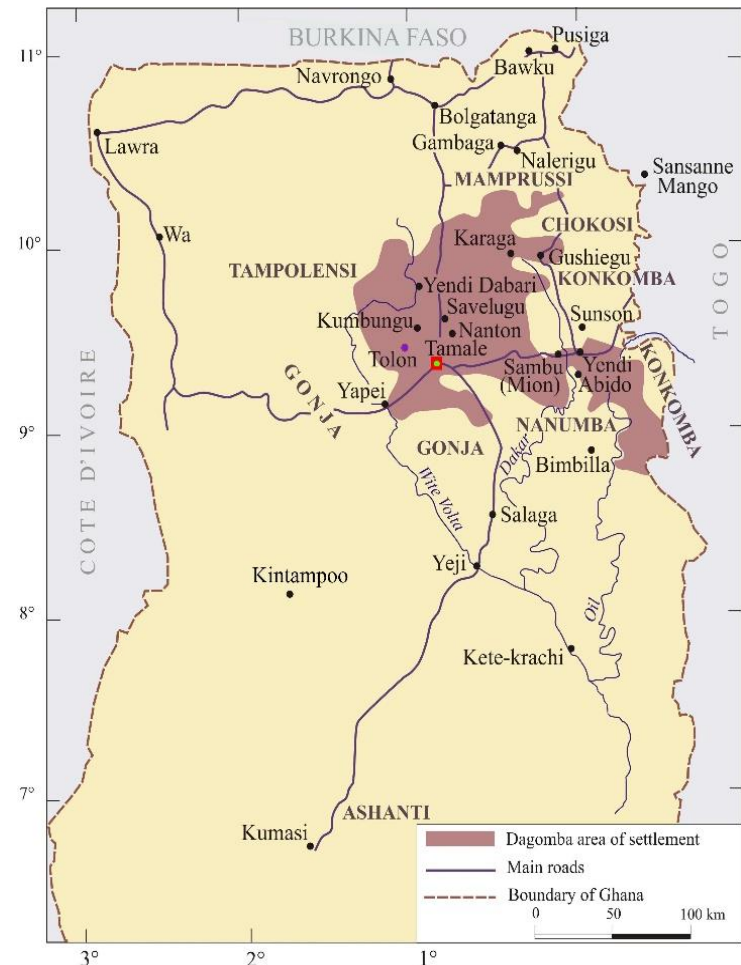
- RMCA: Royal museum for Central Africa Tervuren Belgium. 1999-2001
- ICAMD: International Centre for African Music and Dance – Ghana. Fieldwork in Dagbon 2000-2004.
- DEKKMMA: Digitalisation of the Ethnomusicological Archive at the Royal Museum for Central Africa 2004 -2008.
- MIMO: Digitaliasation of meta data Musical Instruments Online, 2009-2011.



Source: Survey Dep. of Ghana- ACCRA

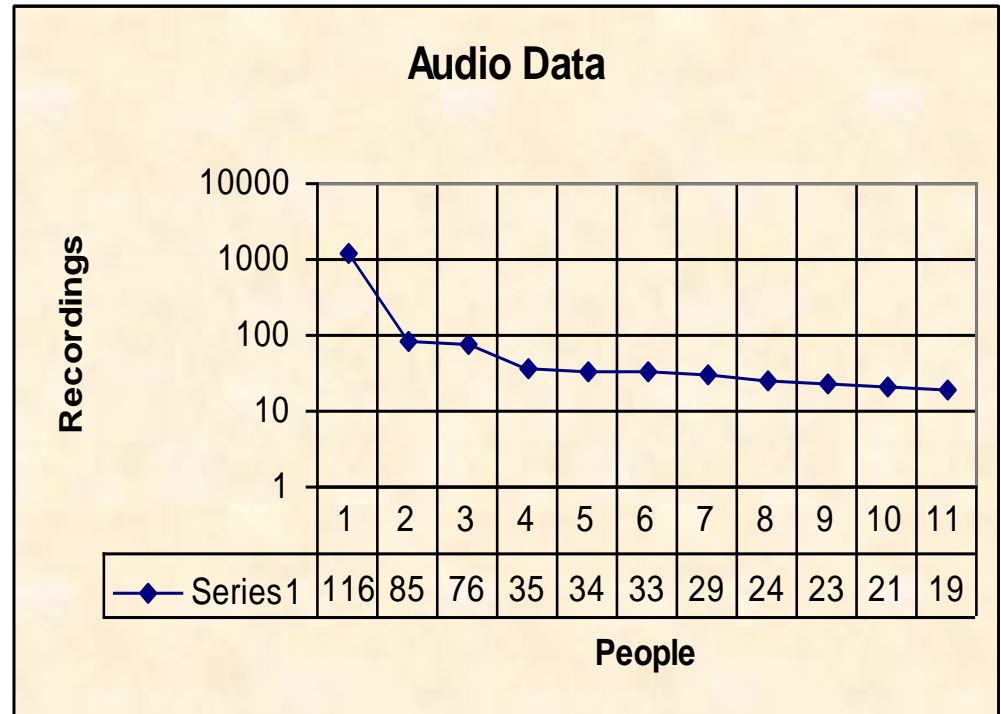
# The significance, objectives and outcome of the documentation project

- To document a section of the traditional idiom of music-making in Dagbon and preserve it for posterity and making it available to a wider public in Ghana and the world at large.
- To contribute to the scholarly study of music-making in Ghana by providing comparative data from the Northern Region of Ghana which at that time was still a relatively un - explored area, compared with the Southern part of Ghana.
- To contribute to the study on the dynamics of music-making in Dagbon society , seen from the angle of embodied music interaction.
- Breaking down the theory of embodied music interaction for educational purposes.



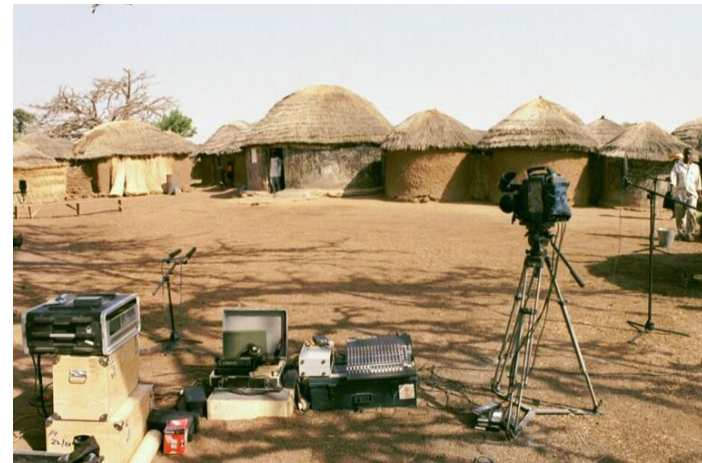
# What has been done (1999 - 2004)

- <b>Dagomba</b>	1161
- <b>Mamprusi</b>	85
- <b>Efutu</b>	76
- <b>Sissala</b>	35
- <b>Frafra</b>	34
- <b>Fanti</b>	33
- <b>Bimoba</b>	29
- <b>Ashanti</b>	24
- <b>Kassena</b>	23
- <b>Lobi</b>	21
- <b>Bono</b>	19



# Archiving (2004 – 2007)

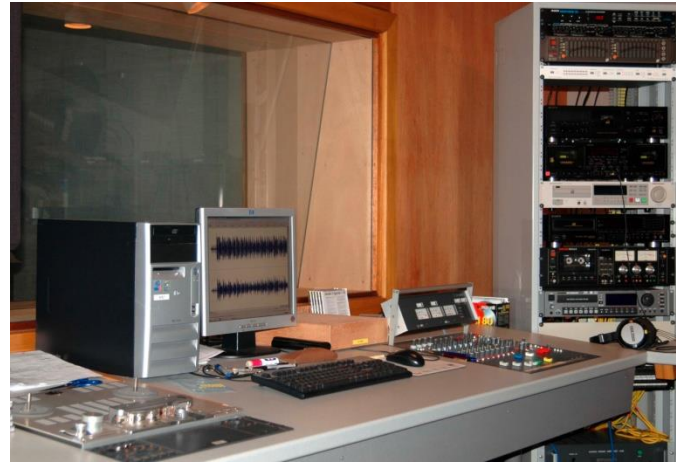
- **Field recordings:** audio - video and interviews.
- Audio: hard disk recording → backup DAT & CD.
- RMCA → editing → mastering → DEKKMMA → database.
- <http://music.africamuseum.be>





# Archiving (2005 – 2007)

- Video: Beta cam and DVCAM.
- Photographs: ca. 4200.
- Field notes: 36 volumes.
- Musical instruments.
- Translations of lyrics, history etc.



# Processing room (2005 -2007)



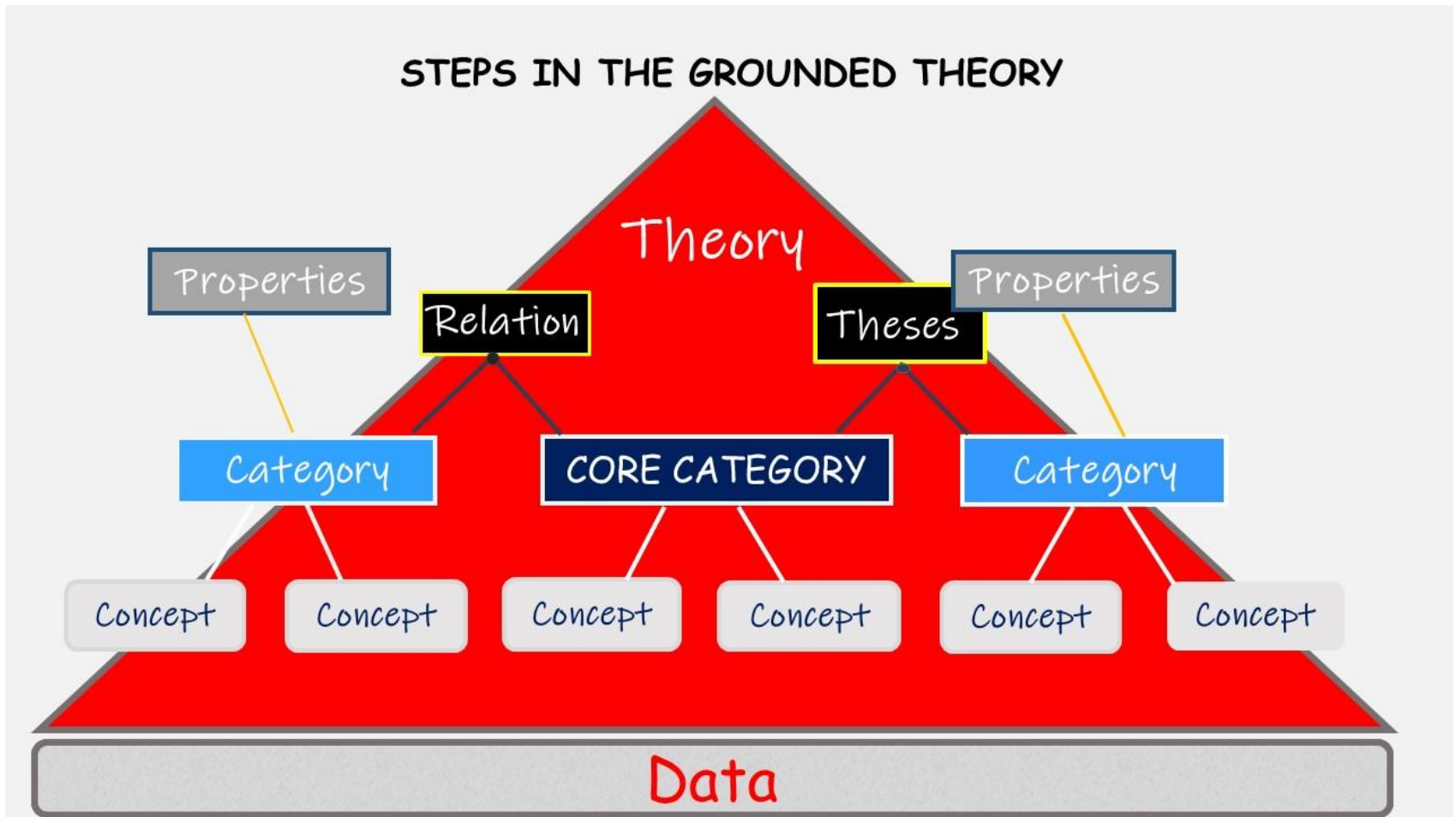


# Audio – Visual Archive (2005 -2007)



- [http://www.africamuseum.be/en/research/discover/human\\_sciences/culture\\_society](http://www.africamuseum.be/en/research/discover/human_sciences/culture_society)
- <http://music.africamuseum.be/>
- <http://music.africamuseum.be/english/index.html>
- <http://www.africamuseum.be/en/research/discover/news/prima>

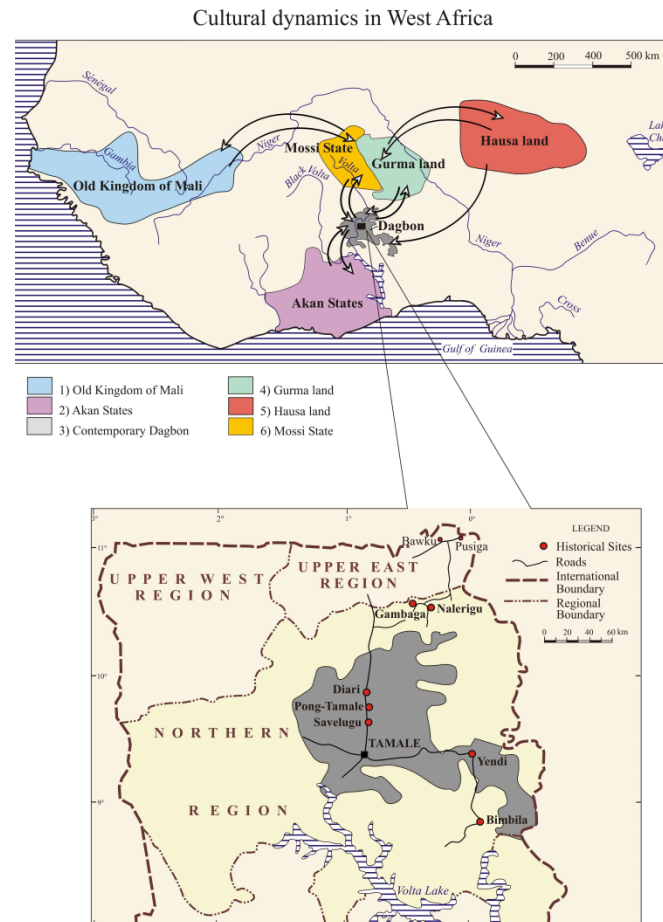
# Methodology



# Core categories of music -making in *Dagbon* Society

- **Male and female**
  - Court music-dance:
  - Ritual music-dance associated with musical clans  
*e.g. Jera, dimbu, bamaaya, Jinwar' paga.*
  - Festival music-dance *e.g.* Damba,
- **Tindana music and dance**
- **Music-dance making for entertainment**
  - Highlife, *Simpa, Tora* etc.
  - Hiplife

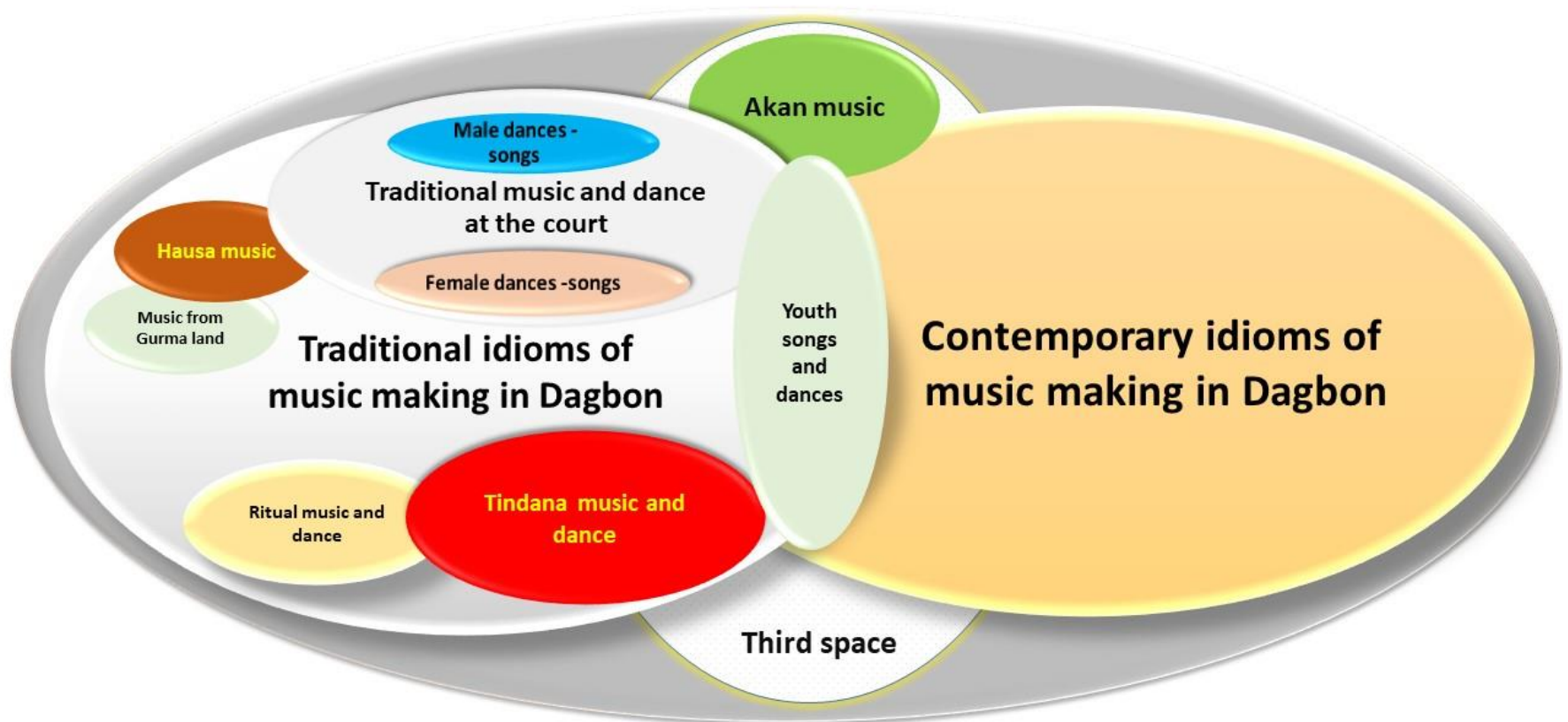
# Transformational processes in Dagbon music





# A representation of the traditional idioms of music-dance making

## The Dagbon Hiplife Zone



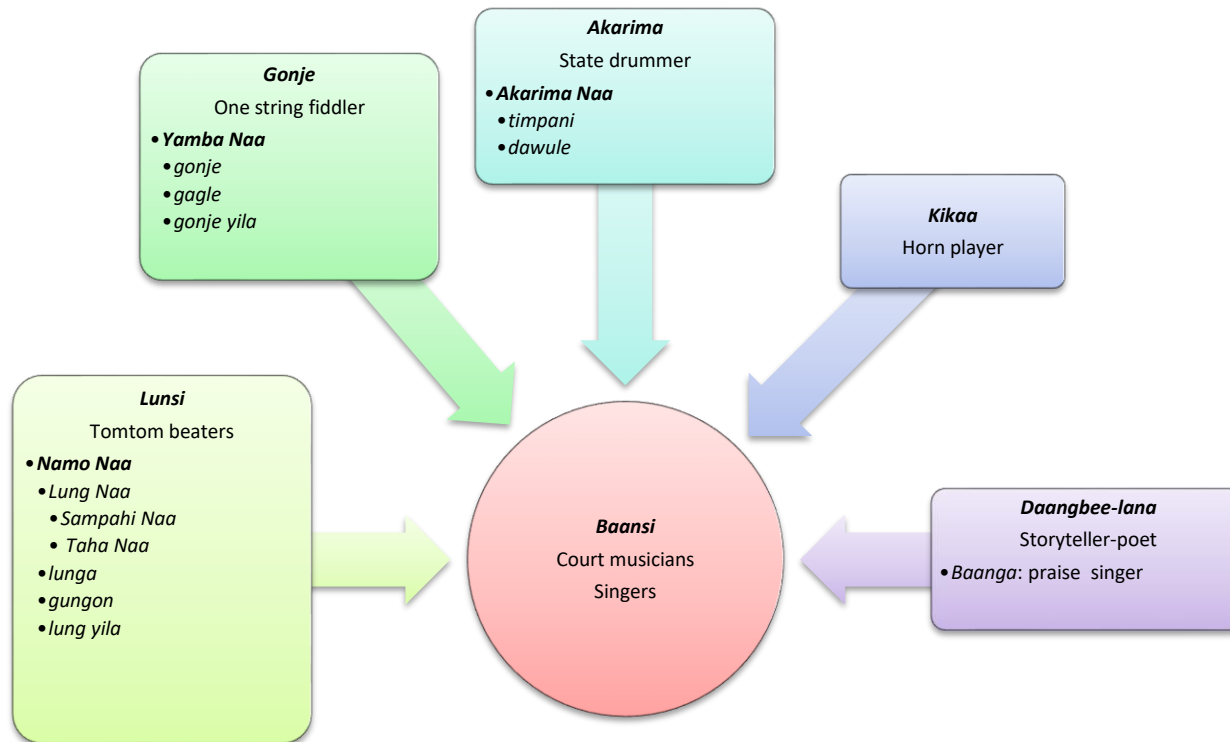
# Traditional idioms of music-making in Dagbon



	TRADITIONAL IDIOM OF MUSIC MAKING IN DAGBON	
	<b>Court music-dance</b>	<i>Gingaani, gonje, zuu waa, takai, akrama bangumanga</i>
	<b>Ritual music –dance</b>	
MALE MUSIC-DANCE	Ritual music-dance associated with extended family clans	<i>Kambonsi, dimbu, jera, bla, Bamaaya, nyindogu, kate waa, nagboli, бага</i>
	<b>Tindana music-dance</b>	<i>Tolon Djakboo, ziem, tindana waa</i>
	Music-dance associated with extended family clans and professions	<i>Tohi waa, nakogi waa, macheli waa, wanzam waa</i>
	Music-dance associated with annual festivals	<i>Damba, ziem,</i>
	<b>The Hiplife Zone</b>	Music-dance for entertainment: Hiplife, highlife, <i>simpa yila</i> reggae, contemporary highlife, gospel music
FEMALE MUSIC-DANCE	<b>Court music-dance</b>	
	Ritual music-dance associated with extended family clans	<i>Jinwara paga, kate waa</i>
	<i>Tindana</i> music-dance	<i>Tindana waa</i>
	Music-dance associated with annual festivals	<i>Damba, damba yila</i>
	Traditional music-dance for entertainment	<i>Tora, luwa, bihi waa, simpa, bihi yila</i>
	The Hiplife Zone	Hiplife, highlife, <i>simpa waa</i> , contemporary highlife, gospel music etc.

<b>COMPONENTS</b>	<b>MUSICAL CHARACTERISTICS</b>
<b>First component</b>	Song with handclapping. Handclapping as an important accompanying musical instrument during songs and dances.
<b>Second component</b>	The presence and the use of a variety of drums.
<b>Third component</b>	The use and wide range of musical instruments, including the varied forms of membranophones, idiophones, chordophones and aerophones.
<b>Fourth component</b>	The use of musical instruments in the form of orchestral groups, solo instrumental performances and as accompaniment to song.
<b>Fifth component</b>	The use of body percussion as a musical instrument during songs and dances.
<b>Sixth component</b>	The lyrical use of proverbs in the song texts as a musical intercultural phenomenon.
<b>Seventh component</b>	The use of tone language/ drum language in instrumental and vocal music.
<b>Eight component</b>	Traditional music-dance is a highly hybrid cultural phenomenon, cultural transformational processes, continuity and change forms the basis of traditional African music-dance found in that part of Africa.
<b>Ninth component</b>	The use of call and responds techniques in the musical form. The call and responds singing style.
<b>Tenth component</b>	Expressive components: The intensity factor in African music-dance. Embodied music interaction, simultaneous multidimensionality in rhythmical structures, African hemiola style , concept of a moveable one.

# Court music





# Some results of the research

- Concept of embodied music interaction.
- *Bamaaya* dance and the concept of movable one.
- *Tindana waa* and concept of homeostatis and transitional states in the dance mode of drumming.
- Case study on expressive timing.

# Defining Embodied Music Interaction

- Embodied music interaction on the music and dance in *Dagbon* we studied assumes that the musical stimulus and the auditory perception of music are ambiguous and that Dagbon music-making is cyclic and has a strong improvisational character.
- The theory assumes that the musical stimulus contains both “ternary-duple” and “binary – triple” meter components which are diachronic, meaning that both metric structures can be simultaneously available for embodied music perception.

# Defining the Intensity Factor

- Meter is regarded as a matrix of beats of different durations and positions within an isochronous time span that recycles repeatedly during performances.
- Beats flow as steady tempo, shaping musical time into equidurational units that are available to listeners and performers.
- By moving to music, such as hand-clapping, work movement, or dance the listener can select a binary or ternary pattern in the matrix and listens by means of an auditory filter or “grid”.

# The Aferian Hemiola Style

- In the traditional idiom of music making in *Dagbon*, duple and triple metric structures are inseparable.
- The simultaneous exciting and superposition of a triple metered timeline  $3/4$  and compound duple meter  $6/8$  timeline in combination with a duple meter timeline  $2/4$  are phenomena that are dance derived.
- The co-exciting of duple and triple divisions of meter in a given dance produces the hemiola  $3/2$  effect.

# *Jera waa*

- *Jera* is a ritual (religious) circle dance.
- It is performed during festivals and funerals and ceremonies.
- *Jera* dance is accompanied by drums, raffia rattles and two flutes.
- The instrumental accompaniment of the percussion instruments are particularly striking, as it is very polyrhythmic, and is composed of several small rhythmic cells.
- The *yuwa* flute is played in hocketus figures, one are two flutes alternating as one musician starts of and plays a pattern, followed by the second.

- **Instruments:**     *Lung bla*  
                              *Gungon bla*  
                              *Fienga*  
                              *Chagla*  
                              *Kalamboo*  
                              *Siyalim*
- **Costume:**         *Kulgu*  
                              *Kukpa*  
                              *Lagkpahra*



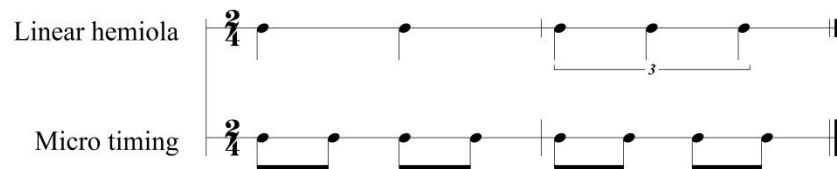
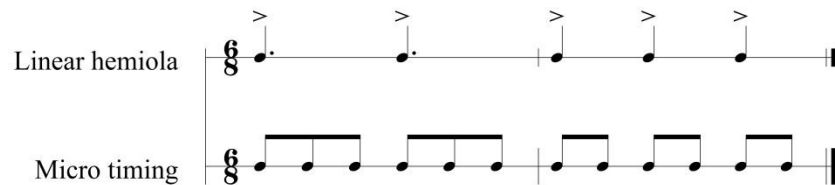


# The Hemiola Style

- Rose Brandel distinguished two types of Aferian hemiola style, the horizontal and vertical hemiola.
- Aferian comes from the Latin root word *Afer*, denoting all lands south of the Mediterranean.
- What we call the Aferian hemiola style is referred to in the literature as the African hemiola style.
- To situate this rhythmic phenomenon, we prefer Aferian instead of African, so as to avoid the latter's historical and socio-political connotations. In speaking of 'Africa' one may tend to ignore the continent's internal diversity. In contrast, the term Aferian simply means "from Africa", the geographical area.



# The linear Hemiola in the ritual music-dance in *Dagbon*



- In the linear Aferian hemiola style of performing, the hemiola forms part of the architectural structure of the music/dance. The whole rhythmical pattern of the music-dance grove is based on the Aferian hemiola style.
- The overall perception the listener gets is a gestalt a combination of 2-beat groupings and 3-beat grouping that forms part of the architectural structure of the music-dance.
- According to Kofi Agawu, a 2-beat grouping and a 3-beat grouping belongs to a single rhythmical gestalt that forms the basis of African Rhythms Agawu, Kofi (2003: 92).

# The Aferian Hemiola Style

- Brandel distinguished two types of African hemiola style, the horizontal and vertical hemiola.
- The “**horizontal**” hemiola involves the two-three exchange within larger rhythmical patterns.
- The “**vertical**” hemiola results from the combination of several parts or lines, each line exhibiting its own particular 2-3 grouping.

# The Hemiola Style

The horizontal hemiola style is the result of the combinations of superposition of several multipart lines.

In the horizontal hemiola style of performing each part contains its own 2-3 grouping.

Each line maintain a certain degree of rhythmical independence especially with respect to the perceived micro timing (metronomic functions) of the 2-beat and 3-beat groupings.

Each part may have its own timeline structure, which is the basic pulse of a given music-dance and in the processes keeps and holds the whole rhythmical structure.

These superposition's of polyrhythmic structures are complex depending on the number of instruments that interlocks with each other. *e.g. jera, nyngdogu, dimbu, bla waa, jinwarpaga and Bamaaya.*

# Linear and vertical hemiola style showing a “movable one”

The image displays a musical score for a multi-instrument ensemble, illustrating a linear and vertical hemiola style. The score is organized into six staves, each representing a different instrument or rhythmic layer. The notation includes melodic lines, rhythmic patterns, and fingerings, with a focus on a "movable one" concept.

The staves are labeled as follows:

- Kalamboo
- Alamboo 1
- Alamboo 2
- Stick
- Polymeter
- "Grid"

The score is divided into two main sections by a vertical line. The first section (left) shows the initial rhythmic patterns, and the second section (right) shows the continuation of these patterns, with a focus on the "movable one" concept. The notation includes various rhythmic values (e.g., eighth notes, sixteenth notes) and fingerings (e.g., 1, 2, 3, 1, 2, 3, 1, 2, 1, 2, 3, 1, 2, 3, 1, 2).



# A polyrhythmic organization of a ternary-duple meter grouping of a *Bamaaya* melody

The image displays a musical score for a *Bamaaya* melody, organized into four distinct layers. The layers are labeled on the left: Kalamboo, Immediate hemiola, Micro timing, and Sectional hemiola. The Kalamboo layer is written on a treble clef staff. The Immediate hemiola layer is written on a staff with a double bar line at the beginning. The Micro timing layer is written on a staff with a double bar line at the beginning and includes the lyrics 'ga ma la ga ma la ga ma la ga ma la ta ki ta ki' below the notes. The Sectional hemiola layer is written on a staff with a double bar line at the beginning and includes the numbers '1 2 3 1 2 3 1 2' below the notes. Dashed lines indicate groupings across the layers.

Kalamboo

Immediate hemiola

Micro timing

Sectional hemiola

1 2 3 1 2 3 1 2

ga ma la ga ma la ga ma la ga ma la ta ki ta ki

# The embodiment of narratives in the music-dance

**Bamaaya**  
Nyakboli

$\bullet = 140$

Kalamboo 1

Kalamboo 2

Lunga

Gungon1

Gungon 2

Chagla.

1

2

3

The image displays a musical score for a piece titled 'Bamaaya' in the Nyakboli style. The score is written for six instruments: Kalamboo 1, Kalamboo 2, Lunga, Gungon1, Gungon 2, and Chagla. The tempo is marked as 140 beats per minute. The Kalamboo parts are in treble clef with a key signature of three sharps (F#, C#, G#) and a 3/4 time signature. The Lunga, Gungon1, Gungon 2, and Chagla parts are in bass clef with a 3/4 time signature. The Chagla part features a box labeled '3' with a line pointing to a photograph on the right. The photograph shows two men in traditional attire performing a dance on a dirt ground. One man is wearing a patterned skirt and a headband, while the other is wearing a blue shirt and yellow pants. They are surrounded by trees and a clear sky.

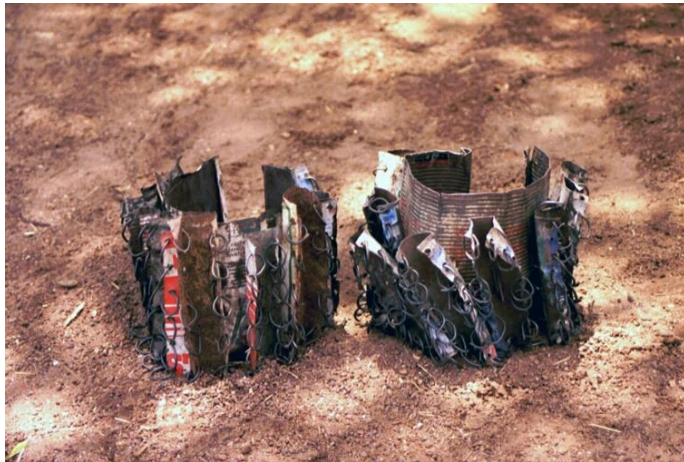
# *Bamaaya waa*

- *Bamaaya*: River valley.
- Instruments:
  - Kalamboo*
  - Lunga*
  - Gungon*



# *Bamaaya* costume

- *Mokuru*
- *Gmandugu*
- *Chagla*
- *Tipara*
- *Darna*
- *Bouwa*
- *Kafani*





# *Tindana waa*

- **Tendana waa**: Dance of the earhpriest.
- It is a fertility dance, performed for the local god "*Djakboo*" of Tolon → a Lion.
- **The ritual**:
  - short introduction.
  - long Central part.
  - short decay.
- **Instruments**:
  - lunga: hourglass shaped drum.
  - Gungon: double - headed cylindrical drum with timbre.
  - handclaps and singing.



## *Tindana waa*

- “**Ziem**”, meaning blood, is the ceremonial ritual dance of the *tindana*.
- *Ziem* can be performed during different occasion such as the installation ceremony of a new *tindana*, the fire festival, fertility ceremonies.
- *Ziem* is also beaten during combat at the battlefield. When a new *tindana* is to be installed the **baga** (traditional soothsayer) consults the local god’s through the medium of his bag.
- The *baga* bag consist of different amulets and regalia to contact the spiritual world. Among these amulets are pebbles, horsetail, porcupine needles.





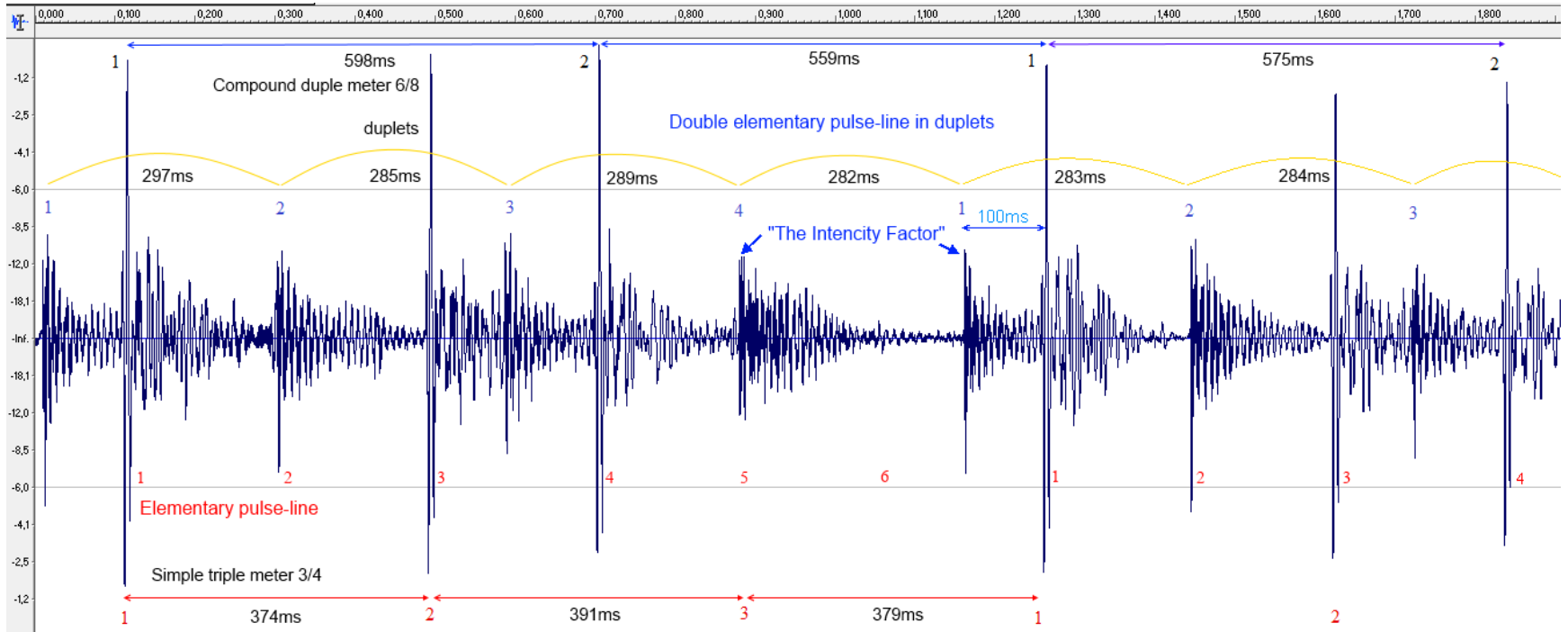
# Simultaneously double elementary pulse-lines

The musical score is organized into six staves, each representing a different component of the performance:

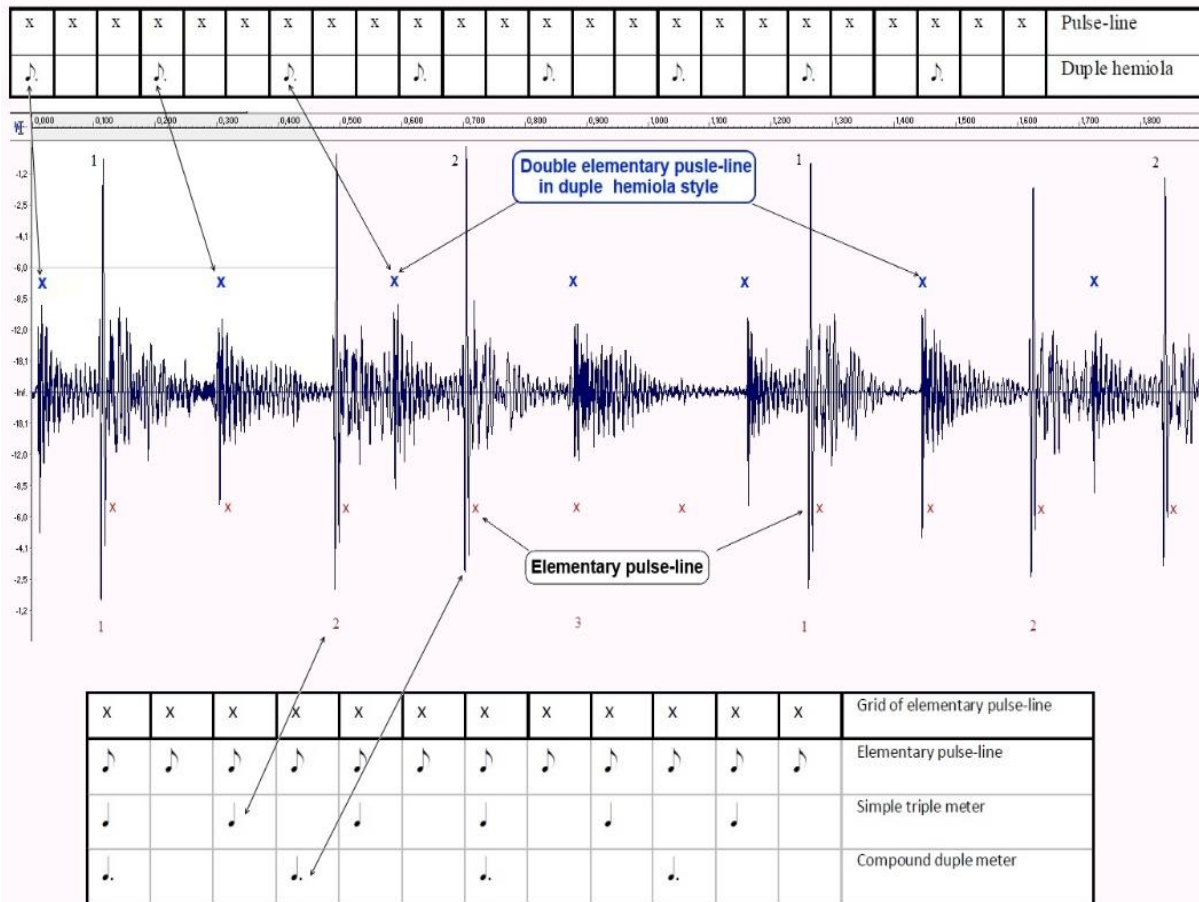
- Call:** The first staff, written in treble clef, contains the vocal melody. It features a call phrase "He Djak-bo-o" followed by a response phrase "he Djak-bo-o". The melody is marked with a '1' above the first measure and a '3' above the third measure. The lyrics are: "He Djak-bo-o he Djak-bo-o he Djak-bo-o he Djak-bo-o he Djak-bo-o."
- Response:** The second staff, also in treble clef, contains the response melody. It is marked with a '2' above the second measure. The lyrics are: "He Djak-bo-o he Djak-bo-o he Djak-bo-o he Djak-bo-o."
- Handclaps:** The third staff uses a rhythmic notation with 'x' marks on a horizontal line to represent claps. It follows the same rhythmic pattern as the vocal lines.
- Lunga 1:** The fourth staff uses a rhythmic notation with 'x' marks and vertical lines to represent a specific rhythmic pattern. It is marked with a '2' below the first measure.
- Lunga 2:** The fifth staff uses a rhythmic notation with 'x' marks and vertical lines to represent another rhythmic pattern. It is marked with a '2' below the first measure.
- Gungon:** The sixth staff uses a rhythmic notation with 'x' marks and vertical lines to represent a third rhythmic pattern. It is marked with a '2' below the first measure.
- Grid 1:** The seventh staff uses a rhythmic notation with 'x' marks and vertical lines to represent a fourth rhythmic pattern. It is marked with a '2' below the first measure.
- Grid 2:** The eighth staff uses a rhythmic notation with 'x' marks and vertical lines to represent a fifth rhythmic pattern. It is marked with a '2' below the first measure.

The score is divided into three measures by dashed vertical lines, labeled 4, 5, and 6 at the bottom. The overall structure is a call-and-response format, with the vocal lines and the rhythmic patterns following a similar sequence of events.

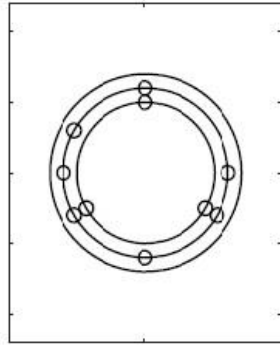
# Defining the Intensity Factor



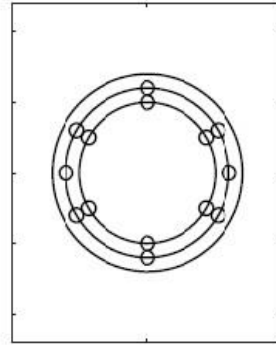
# Double pulse-line



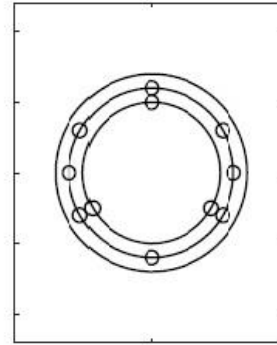
# Different States



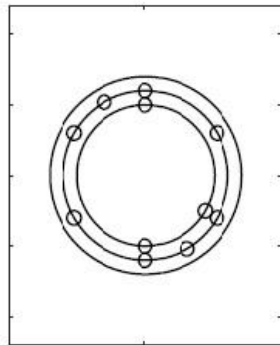
State 1



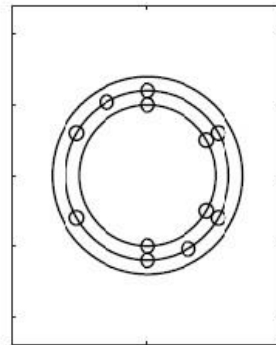
State 2



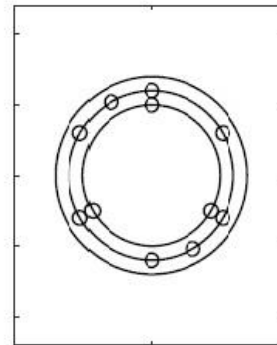
State 3



State 4



State 5



State 6

# State one

Tempo 137

Transcription: Phyfferoen Dominik

State one

Transition zone one

Call 1

He Djak - boo He Djak - boo

Choir 2

He Djak - boo He Djak - boo

Handclaps

Lunga 1

Lunga 2

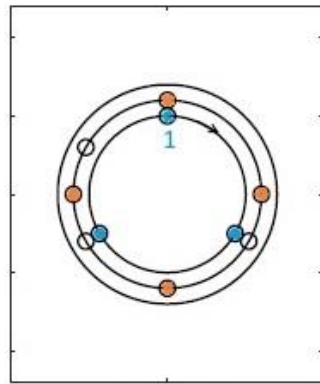
Gungon

Grid 1

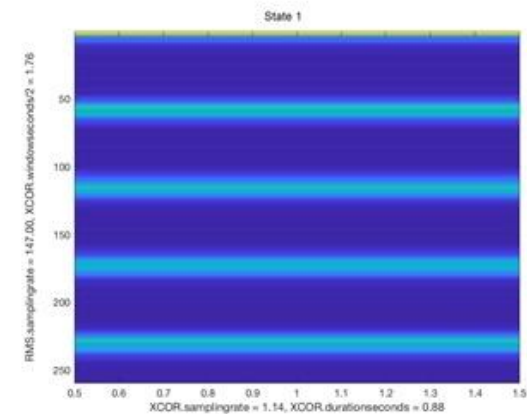
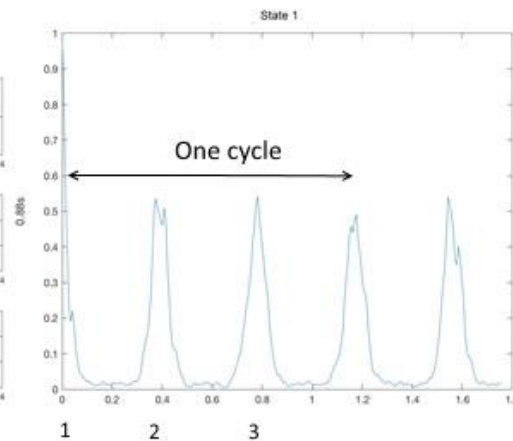
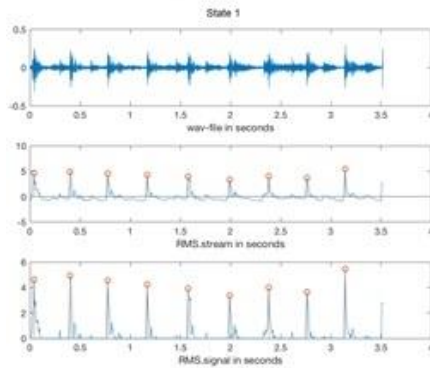
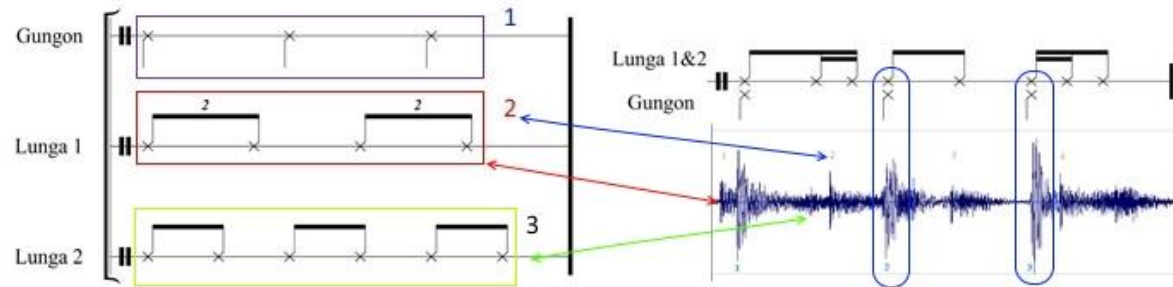
Grid 2

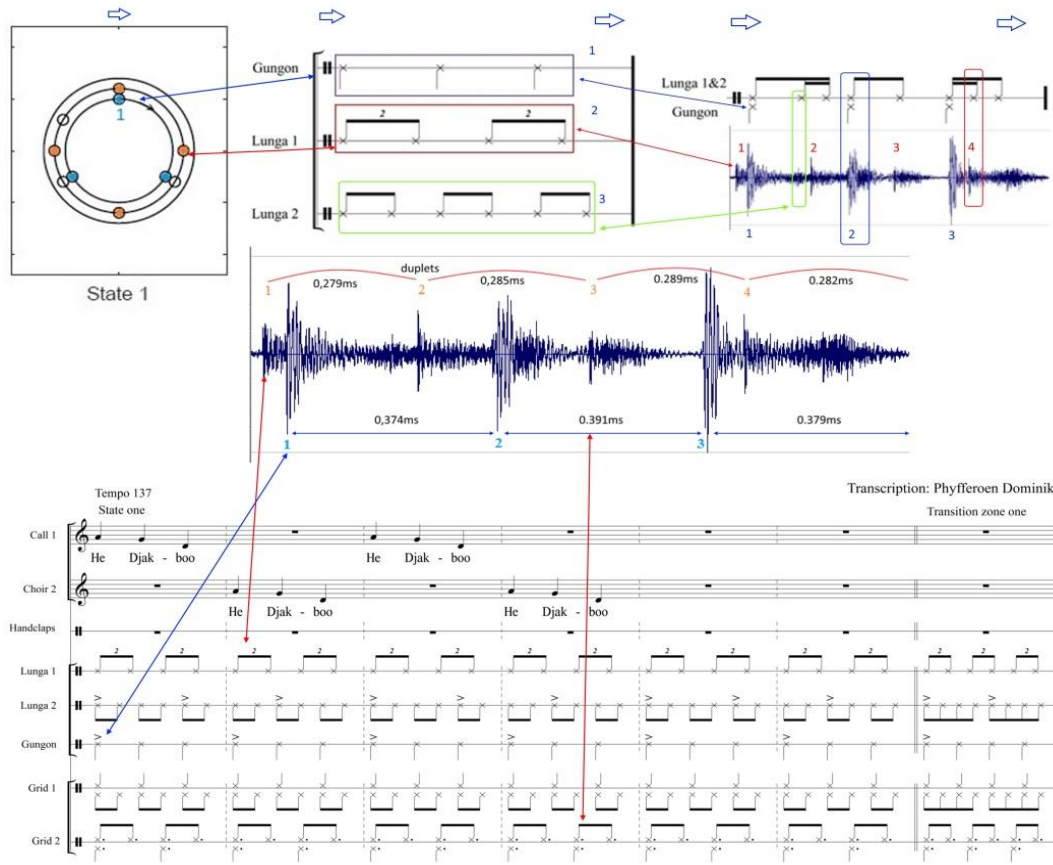
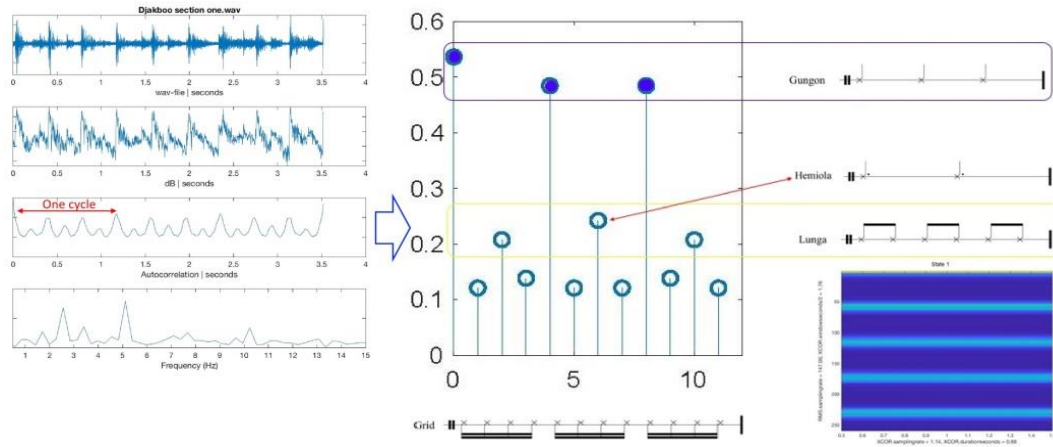
The musical score is written for a group of performers. The top two staves, 'Call 1' and 'Choir 2', use treble clefs and contain the vocal melody with the lyrics 'He Djak - boo'. The 'Handclaps' staff uses a single line with vertical strokes and beams to indicate clapping patterns. The 'Lunga 1' and 'Lunga 2' staves use a single line with 'x' marks and beams to indicate a specific rhythmic pattern. The 'Gungon' staff uses a single line with 'x' marks and beams to indicate another rhythmic pattern. The 'Grid 1' and 'Grid 2' staves use a single line with 'x' marks and beams to indicate a complex rhythmic pattern. The score is divided into two main sections: 'State one' and 'Transition zone one'. The 'State one' section consists of 12 measures, and the 'Transition zone one' section consists of 4 measures. The tempo is marked as 137.

# State one



State 1



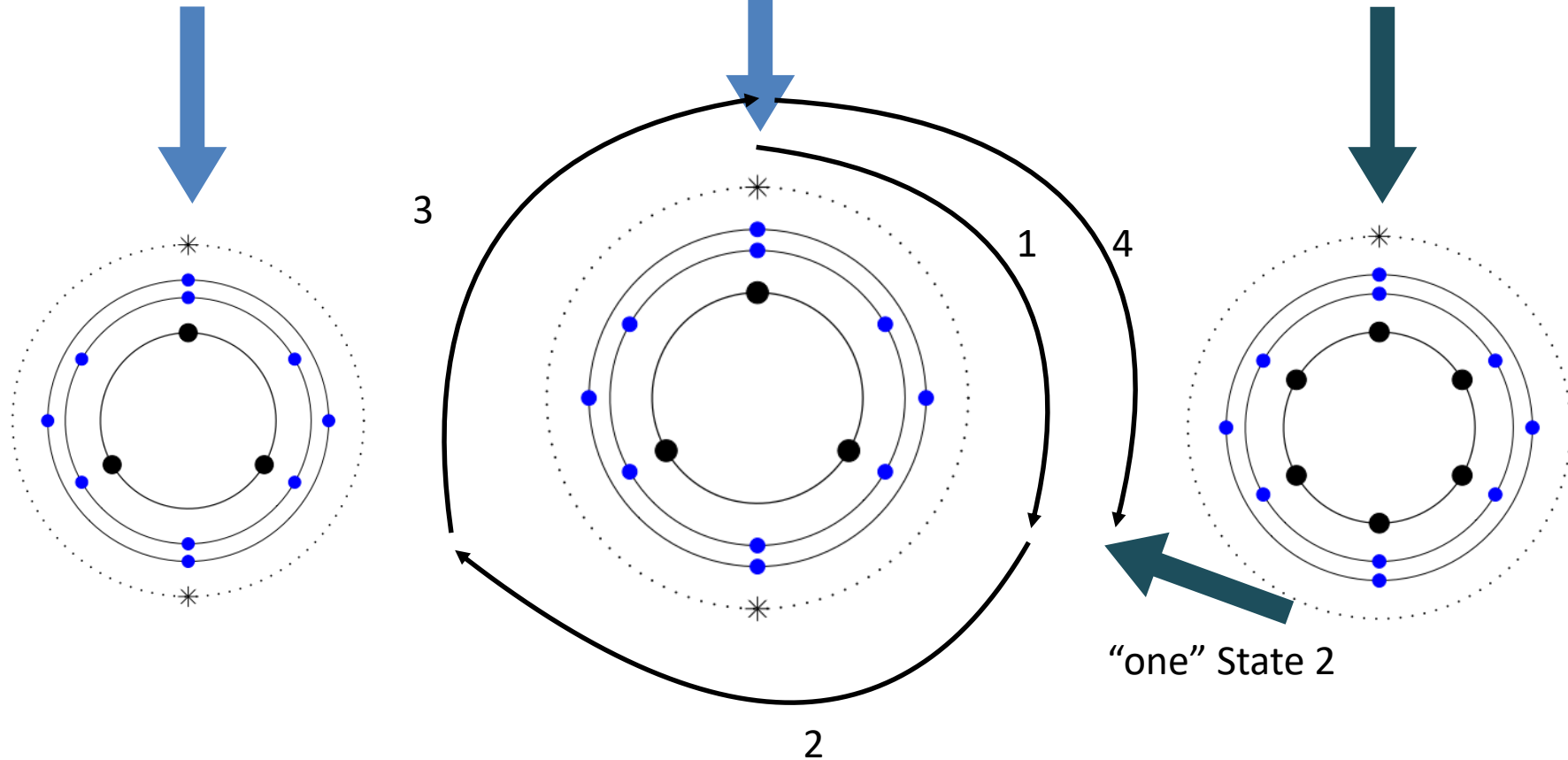




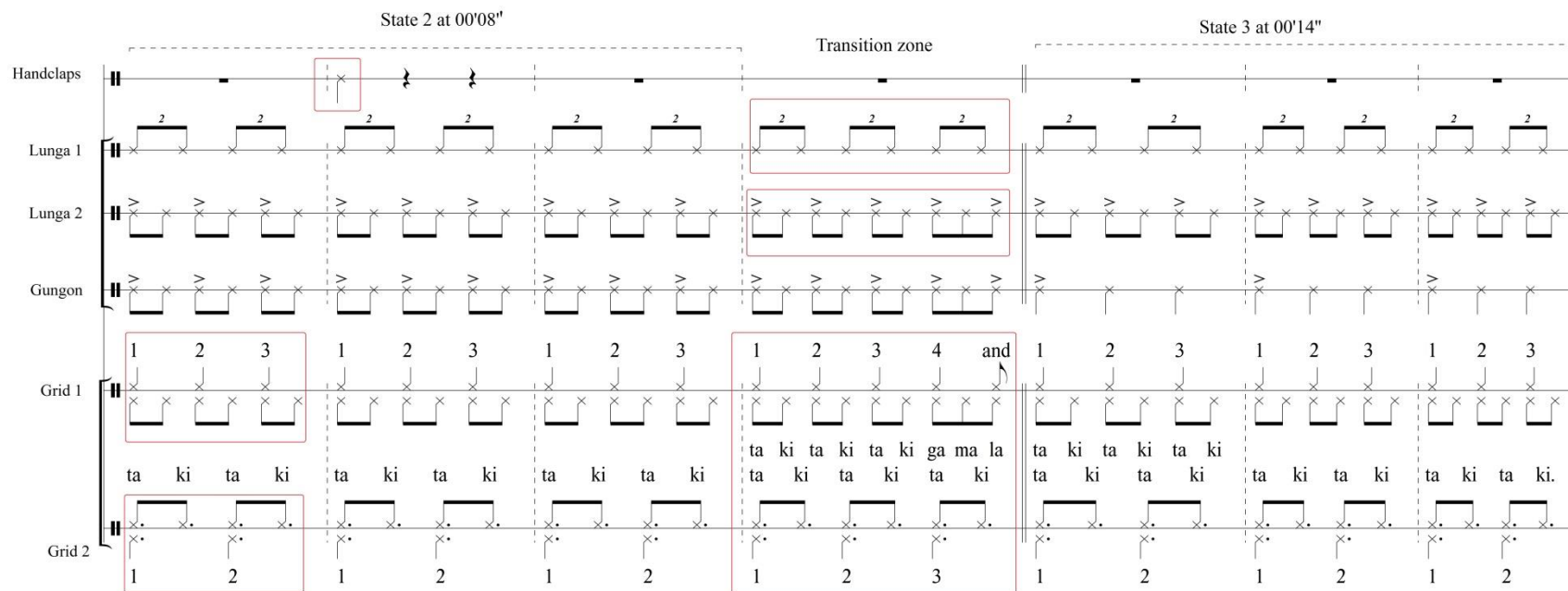
"one" State 1

"one" State 1

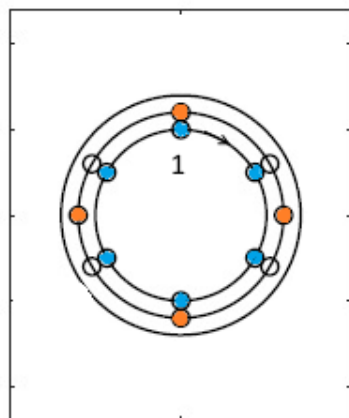
"one" State 2



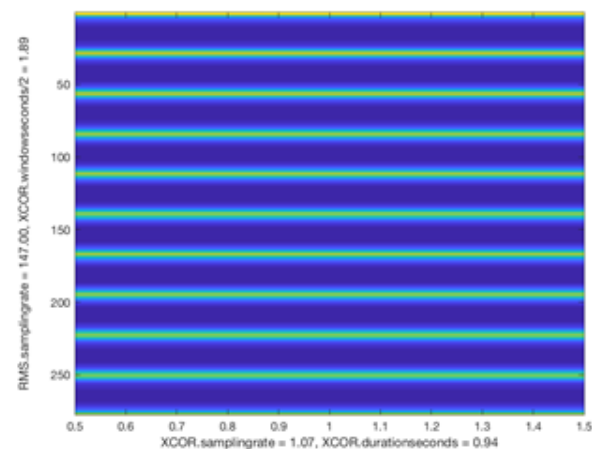
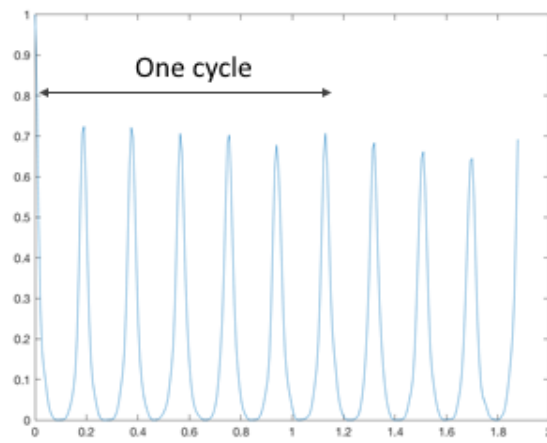
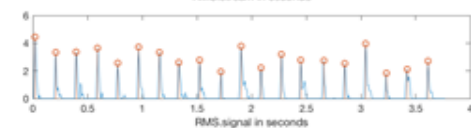
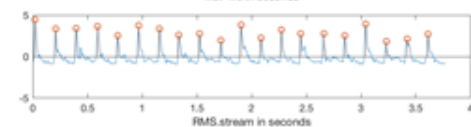
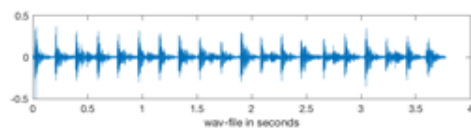
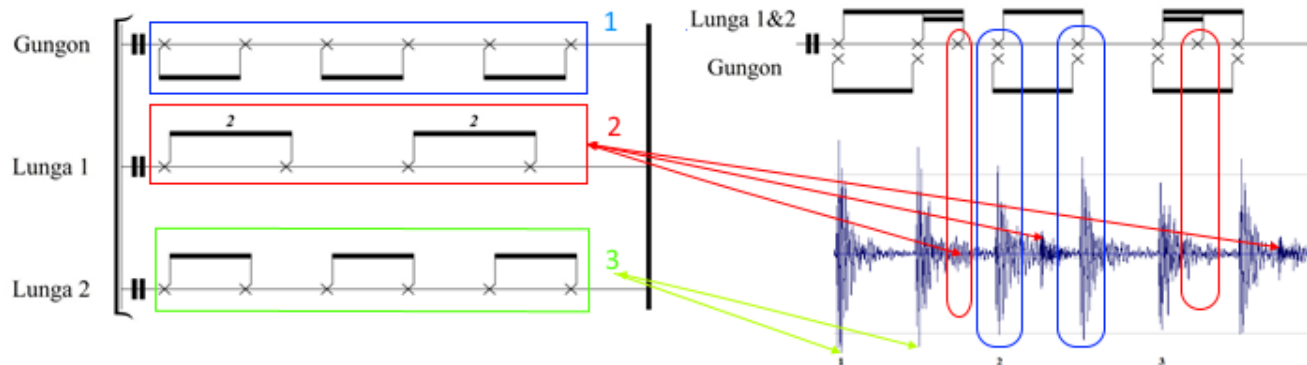
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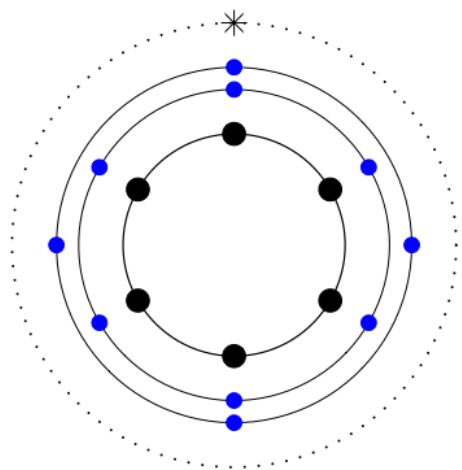
# State two



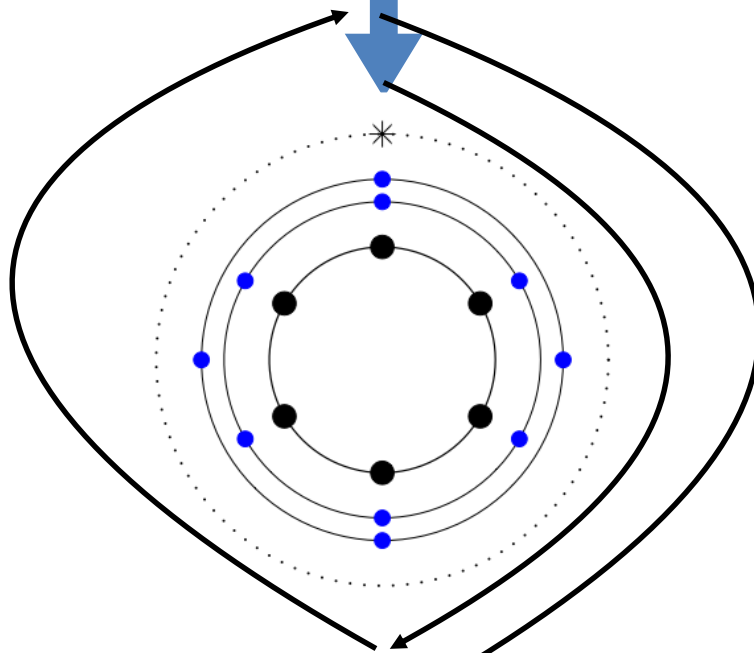
State 2



"one" State 2



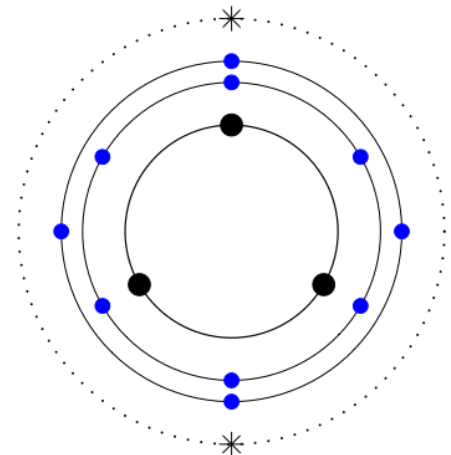
"one" State 2



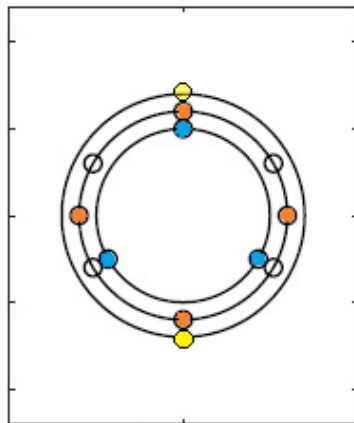
"one" State 3



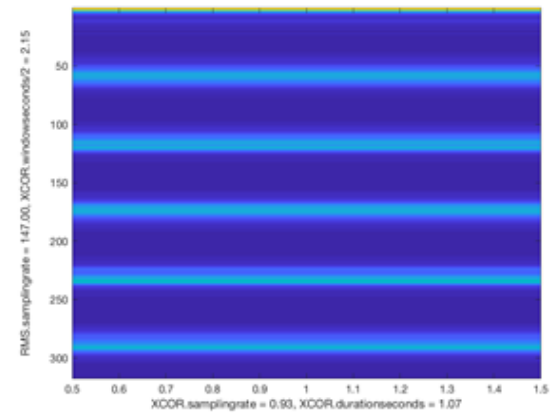
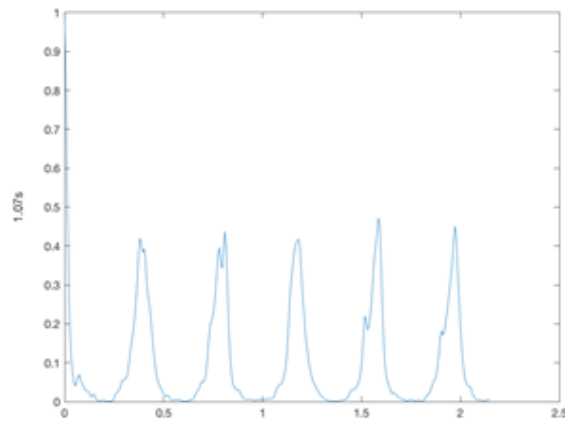
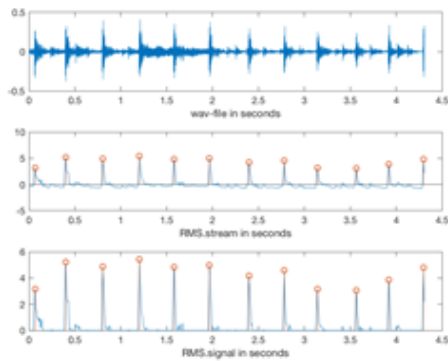
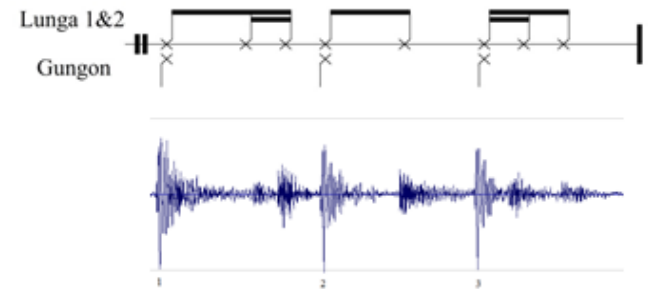
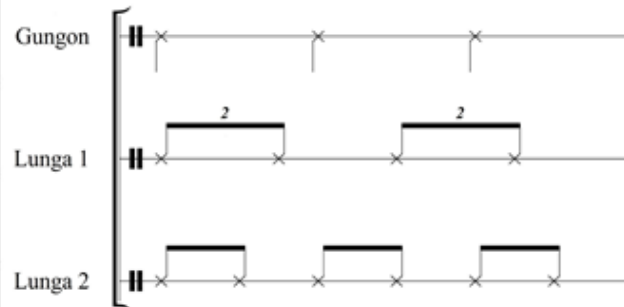
"one" State 3



# State three



State 3

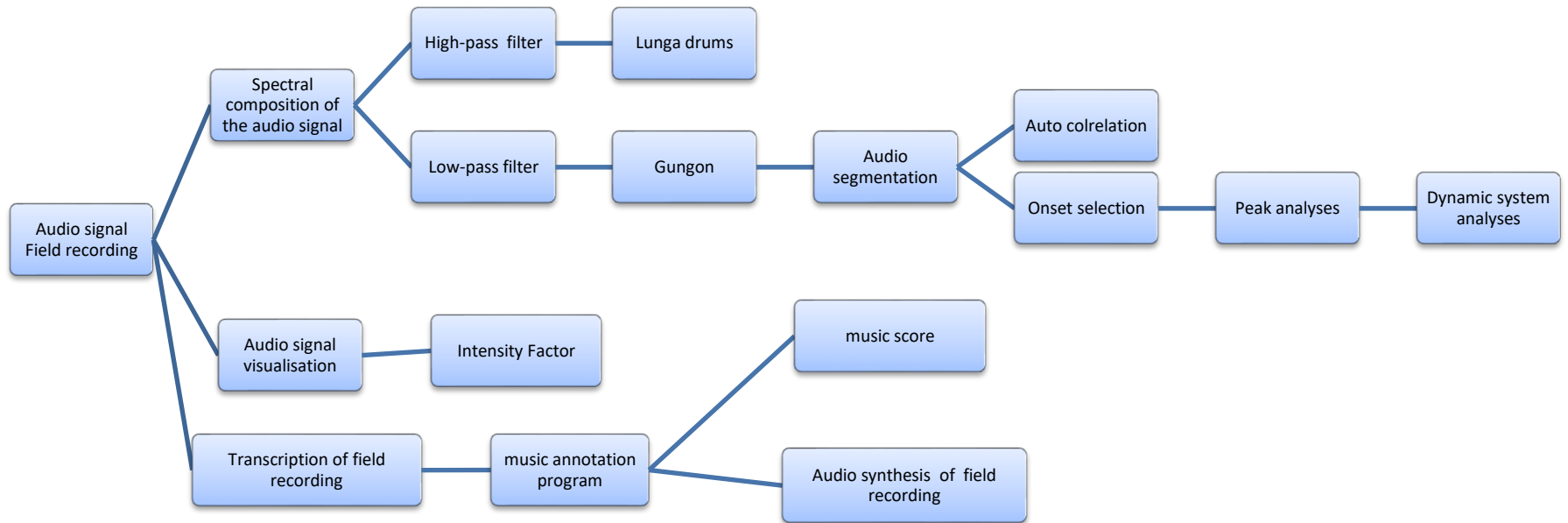


# Multilinear Rhythmic structures of *Tindana waa Djakboo*

The diagram illustrates the multilinear rhythmic structures of *Tindana waa Djakboo*, organized into seven horizontal layers across three measures. Each layer contains numbered rhythmic patterns (1-15) with specific notations like stems, beams, and flags.

- Duplets:** Layer 1. Measure 1: Pattern 1 (1 2 1 2). Measure 2: Pattern 1 (1 2 1 2). Measure 3: Pattern 15 (1 2 1 2).
- Microtiming 1:** Layer 2. Measure 1: Pattern 2 (8 notes). Measure 2: Pattern 8 (8 notes). Measure 3: Patterns a, b, c, d (4 notes each).
- Compound duple meter:** Layer 3. Measure 1: Pattern 3 (6 notes). Measure 2: Pattern 9 (6 notes). Measure 3: Pattern 12 (6 notes).
- Hemiola:** Layer 4. Measure 1: Pattern 4 (4 notes). Measure 2: Pattern 1 (2 notes). Measure 3: Pattern 1 (2 notes).
- Compound duple meter:** Layer 5. Measure 1: Pattern 5 (6 notes). Measure 2: Pattern 10 (4 notes). Measure 3: Pattern 13 (4 notes).
- Microtiming 2:** Layer 6. Measure 1: Pattern 6 (4 notes). Measure 2: Pattern 1 (4 notes). Measure 3: Pattern 1 (4 notes).
- Simple triple meter:** Layer 7. Measure 1: Pattern 7 (3 notes). Measure 2: Pattern 11 (3 notes). Measure 3: Pattern 14 (3 notes).

# Flow diagram





# A case study on expressive timing



**Bipolar adjectives in English and Dagbani.**

English (Dagbani)	English (Dagbani)
Majestic (Nambalim)	Licht (Di balimi)
Chaotic (Dinsagem)	Orderly (Dede)
Gay (Shupehli)	Sad (Suhbehli)
Fragile (Balim)	Powerful (Yaa or Kpion)
Carefree (Zagyoli)	Anxious (Dabemdana)
Bold (Bidebga)	Tender (Suhmahli)
Calm (Suhodoo)	Restless (Suhuyoli)
Simple (Obi vuhira)	Sumptuous (Di lura)
Pleasing (Di nyemdi ni)	Annoying (Di yegsiri suhu)
Moving (Din cheka – adam)	Indifferent (Di be nyemdi ni)
Restrained (Di sagya)	Passionate (Di dim dini)
Desperate (Di ka pilgu)	Hopeful (Di tiri teha)
Exciting (Di nyegsa)	Boring (Di be nyegsa)
Lively (Di mali yaa)	Dead (Di kka nyo veili)
Positive (Di tiri tehi veili)	Negative (Di turi tehi beiri)



# Jinjelin music



## Simdi Nyaanga The aftermath of love

Fusieni Tia

Lead vocals

A - ba sim-di nyaan - ga. A-ba sim-di nyaan - ga. M-ba ye sim-di nyaan - ga. A-ba sim-di nyaan - ga. -

Backing vocals

Jinjelin

Cowbell



# Jinjelin music

## Simdi Nyaanga The aftermath of love

Fusieni Tia

Lead vocals

Backing vocals

Jinjelin

Cowbell

1

2

3

4

5

6

A - ba sim-di nyaan - ga. A-ba sim-di nyaan - ga. M-ba ye sim-di nyaan - ga. A-ba sim-di nyaan - ga.



## Preliminary conclusion

- Out of the field recordings we can distinguish so far two types of Aferian hemiola style of performances in the music/dance in *Dagbon*.
- Musical behavior in *Dagbon* society involves sound (*yila*) meaning singing, (*lunga*) meaning drumming, (*waa*) meaning dancing (body movements) and sentiment our emotions.
- Dancing involves foot stamping, handclapping and body percussion, beating on idiophones, rhythm sticks and working tools.
- Because of the interaction of music and dance in the music of *Dagbon*, music and dance is characterized by 2-beat and 3-beat groupings.

# Conclusion

- The fieldwork – ethnographic research – interviews
- Editing of the recordings (copies for the partner institutions).
- Processing of the field notes as metadata for the DEKKMMA database.
- The Dagomba history according to the oral drum tradition.
- Classification of the photo's (ca 4200).
- Transcriptions and translations of lyrics of the songs.
- Publication on the internet (DEKKMMA) of some of my field notes.